



Cornell University  
ILR School

Cornell University ILR School  
**DigitalCommons@ILR**

---

Articles and Chapters

ILR Collection

---

1995

## Income Distribution in Developing Economies: Conceptual, Data, and Policy Issues in Broad-Based Growth

Gary S. Fields

*Cornell University*, [gsf2@cornell.edu](mailto:gsf2@cornell.edu)

Follow this and additional works at: <https://digitalcommons.ilr.cornell.edu/articles>



Part of the [Growth and Development Commons](#), [Income Distribution Commons](#), [International and Comparative Labor Relations Commons](#), and the [Labor Economics Commons](#)

Thank you for downloading an article from DigitalCommons@ILR.

**Support this valuable resource today!**

---

This Article is brought to you for free and open access by the ILR Collection at DigitalCommons@ILR. It has been accepted for inclusion in Articles and Chapters by an authorized administrator of DigitalCommons@ILR. For more information, please contact [catherwood-dig@cornell.edu](mailto:catherwood-dig@cornell.edu).

If you have a disability and are having trouble accessing information on this website or need materials in an alternate format, contact [web-accessibility@cornell.edu](mailto:web-accessibility@cornell.edu) for assistance.

---

# Income Distribution in Developing Economies: Conceptual, Data, and Policy Issues in Broad-Based Growth

## Abstract

[Excerpt] The aim of economic development is to raise the standard of living of a country's people, especially its poor. Economic growth, particularly when broadly based, is a means to that end.

'Underdevelopment' can be defined as a state of severely constrained choices. When one is choosing from among an undesirable set of alternatives, the outcome will itself be undesirable. Standards of living will be low. If standards of living are to be improved, people must have a better set of alternatives from which to choose.

'Economic development' is the process by which the constraints on choices are relaxed. Based on ample evidence from microeconomic studies (see, for instance, the Nobel Prize winning research of T. W. Schultz 1980), we may be confident that when poor people in the developing world have better options from which to choose, the choices they make will lead them to enjoy better outcomes, hence raising standards of living. Accordingly, the task of economic development is to enhance the alternatives from which to choose, that is, the 'choice set'.

'Broad-based growth' means that the choice set is improved for all economic strata. There is good reason to expect that the upper and middle classes have many mechanisms at their disposal for benefiting from the growth process. These groups gain when economic growth takes place. It is less certain whether the poor are also reached by growth.

## Keywords

poverty, development economics, income distribution, economic growth, underdevelopment

## Disciplines

Growth and Development | Income Distribution | International and Comparative Labor Relations | Labor Economics

## Comments

### Required Publisher Statement

© [Asian Development Bank](#). Final version published as: Fields, G. S. (1995). Income distribution in developing economies: Conceptual, data, and policy issues in broad-based growth. In M. G. Quibria (Ed.), *Critical issues in Asian development: Theories, experiences, and policies* (pp. 75-107). Hong Kong: Oxford University Press. Reprinted with permission. All rights reserved.

### Suggested Citation

Fields, G. S. (1995). *Income distribution in developing economies: Conceptual, data, and policy issues in broad-based growth*[Electronic version]. Retrieved [insert date], from Cornell University, ILR School site: <http://digitalcommons.ilr.cornell.edu/articles/981>

# **Income Distribution in Developing Economies: Conceptual, Data, and Policy Issues in Broad-Based Growth**

***Gary S. Fields***

## **Introduction**

The aim of economic development is to raise the standard of living of a country's people, especially its poor. Economic growth, particularly when broadly based, is a means to that end.

'Underdevelopment' can be defined as a state of severely constrained choices. When one is choosing from among an undesirable set of alternatives, the outcome will itself be undesirable. Standards of living will be low. If standards of living are to be improved, people must have a better set of alternatives from which to choose.

'Economic development' is the process by which the constraints on choices are relaxed. Based on ample evidence from microeconomic studies (see, for instance, the Nobel Prize winning research of T. W. Schultz 1980), we may be confident that when poor people in the developing world have better options from which to choose, the choices they make will lead them to enjoy better outcomes, hence raising standards of living. Accordingly, the task of economic development is to enhance the alternatives from which to choose, that is, the 'choice set'.

'Broad-based growth' means that the choice set is improved for all economic strata. There is good reason to expect that the upper and middle classes have many mechanisms at their disposal for benefiting from the growth process. These groups gain when economic growth takes place. It is less certain whether the poor are also reached by growth.

## **Income Distribution and Broad-Based Growth**

The case can be made that the poor deserve special attention from development analysts and policymakers, because the poor have, or may be presumed to have, the greatest needs. Hence the marginal social valuation on their income is higher than it is for others. This argument justifies the so-called 'focus axiom', which suggests that we focus our attention on the poor (see Sen 1976).

One philosophical school of thought holds that the proper goal of a society is to maximize the well-being of the worst-off person. This criterion, called the 'maximin principle', has been developed fully by John Rawls (1971). Maximin adherents would accept gains for others, especially the rich, if and only if, such gains raise the well-being of the worst-off in society. Development agencies and some developing country governments, such as the government of India, have made antipoverty efforts the centerpiece of their development plans.

For political economy reasons, societies do not actually maximize the well-being of their worst-off members. In practice, the programs that benefit the poor must offer substantial enough benefits to the nonpoor so that they will support these programs, both financially and politically. These political economy considerations imply that even if the policymakers, themselves, wish to mount propoor programs, there will inevitably be a certain amount of benefit accruing to the nonpoor.

In this connection, the late Arthur Okun (1975) suggested the metaphor of a leaky bucket. The bucket carries benefits directed toward target groups. Inevitably, there will be a certain amount of leakage, and others will thereby gain. Okun asked, How leaky must the leaky bucket be before it's not worth carrying the water?

The preceding points turn traditional development economics on its head. Rather than pursuing economic growth for its own sake and hoping that the benefits will be spread widely enough that the poor derive some gain, we might instead ask how development efforts might be directed toward the poor, through economic growth and other means such as government antipoverty programs and labor market policies. We want to be sure that the benefits of growth are broadly enough based that the poor participate. It would be tragic indeed if the have-nots are excluded from the growth process or, worse yet, impoverished by it.

In sum, broad-based growth means raising standards of living at all socioeconomic levels. As things are, the middle and upper strata probably do not need much help—they will benefit if growth takes place. It is the least well-off in society who require special attention. Therefore, broad-based growth is best operationalized to mean that development efforts are targeted on raising the standards of living of the poor.

## **Patterns of Income Distribution**

Development analysts customarily measure standards of living in terms of household consumption or income. Ideally, these measures would include the value of goods and services provided or subsidized by the public sector (such as government housing, food, health care, and education), by employers (for instance, living

accommodations for workers or on-the-job meals), and by others (such as nongovernmental organizations). In practice, though, the information at our disposal is often limited to cash income or expenditures only.

Suppose that we have such information on income or consumption for two or more points in time during which economic growth has taken place. By what criterion might we gauge how broadly based are the benefits of such growth?

One criterion is to see whether an economy has registered gains in real incomes or consumption for all groups. If this takes place, we would observe higher real incomes in all income quantiles (such as deciles or quintiles). So too absolute poverty, as measured by the poverty head-count ratio, the Sen index, or the P-alpha class, would be lower. In this case, the new distribution would be said to 'dominate' the old. For more on dominance results in poverty analysis, see Atkinson (1987), and Foster and Shorrocks (1988).

The criterion of absolute gains for each group, and hence falling absolute poverty, is a weak one. One reason for this is that although groups as a whole gain, there may be losses for certain individuals or households within those groups. Another reason is that if we find that there have been *some* gains for all groups this does not tell us whether particular target groups have benefited a lot or only a little.

The criterion for broad-based growth might be made more stringent by looking to see whether standards of living have been raised for *all* individuals or households. This, however, is probably *too* stringent a criterion: it is hard to imagine an economy in which there are *only* winners. Someone invariably loses. Looking on balance at the numbers and characteristics of winners compared with losers is more fruitful.

One way of doing this is to see whether an economy has achieved equiproportionate gains for all groups, in proportion to their original economic positions. A stricter criterion is to ascertain whether those with greatest need received disproportionately large gains. By the first of these criteria, growth would be judged to be broad based if inequality is constant, because then each group would have benefited proportionately. By the second criterion, we would require that inequality falls, because only then will the poor have benefited more than proportionately.

This suggests two workable criteria that might be used to help determine the distributional effects of economic growth: one absolute and one relative. One is to determine if real incomes have risen in all strata of the income distribution. If they have, then absolute poverty has surely fallen. The second is to determine whether income inequality has increased, decreased, or remained unchanged.

### **Data for Measuring Poverty and Inequality**

One would think that the subjects of poverty and inequality are central to the assessment of the extent of economic development and that statistical offices of governments and development agencies would regularly publish such information. Alas, such data are not regularly published anywhere.

Consider, for instance, the World Bank. The tables at the back of its *World Development Report* are probably the most consulted source for development data in the world. However, these tables contain nothing at all on income distribution for most of the low income and middle income countries. For those that are included, no

information is presented on poverty, no calculation is made of summary measures of inequality such as the Gini coefficient, and no information is presented on changes in either poverty or inequality over time. What about other World Bank publications? The World Bank's *Social Indicators of Development* would seem a logical place to look. But unfortunately, this publication presents data on changing poverty rates over time only for two countries, Morocco and Pakistan, and no data at all on changes in inequality. Scattered bits of information can be found in other publications of the World Bank if one knows where to look (see chapter 3 of the 1990 *World Development Report* and the, as yet, unpublished work of Ravallion 1993). It simply shouldn't be so hard to find.

What about other international agencies? The United Nations' *Human Development Report* contains poverty head count ratios and Gini coefficients for a large number of countries, but no intertemporal data. *The State of the World's Children*, published by the United Nations International Children's Emergency Fund, has nothing on poverty and inequality, nor does the International Labour Organisation's *Yearbook of Labour Statistics*. However, *The Incidence of Poverty in Developing Countries: An ILO Compendium of Data* (Tabatabai 1993) contains much useful information that will inform the development community for years to come.

Researchers interested in measuring broad-based growth have not, until now, had access to the compendium of the International Labour Organisation, so have been forced to construct their own. In the data base constructed in Fields (1989), countries are included if they meet the following criteria:

- i. The data on income or expenditure must be derived from an actual household survey or census.
- ii. The surveys must be comparable over time.
- iii. The surveys must be national in coverage.
- iv. The data must be presented in enough categories so that reasonable calculations of poverty and inequality can be made.

### **Changing Poverty and Inequality in Various Countries' Experiences Changes in Poverty Over Time**

To be in 'poverty' means to experience a low living standard. 'Absolute poverty' means that the living standard is absolutely low, given the standards of the particular society in which one lives. In practice, a person or household falling below a specified income/expenditure amount is said to be 'poor'.

Poverty lines are set very differently in different countries—see, for instance, Dreze and Sen (1990), and Quibria (1993) for discussions in the context of Asian developing economies. In India, the poverty line was set in a scientific way. The caloric and nutrient values of various foods consumed by the poor were measured. The cost of an adequate diet was then calculated. To this was added the cost of shelter, clothing, and other basic necessities of life. Separate poverty lines were set for urban and rural India, reflecting differences in the cost of the basic market basket of goods. Each year, these poverty lines are increased in proportion to changes in consumer prices. Thus, the poverty line changes in nominal terms but is constant in real terms.

In the Republic of Korea, there is no poverty line. There is, however, a minimum wage. Although the Korean minimum wage is a convenient reference point, it has no scientific basis; it is determined by government in light of political considerations. Minimum wages in countries such as the United States and Brazil are determined in the same way. So in the absence of a scientifically determined poverty line for the Republic of Korea, the most practical thing to do is to define poverty relative to a reference year's minimum wage, adjusting that figure upward for inflation so that the poverty line used is constant in real terms.

Having defined a poverty line and determined whether a given individual or household is or is not poor, the next step is to determine how much poverty there is. The simplest poverty measure is the percentage of recipient units below the poverty threshold. This is called the 'poverty headcount ratio'. It would also be desirable to measure two other aspects of economic deprivation: the extent to which the incomes of the poor fall below the poverty line, termed the 'average income shortfall' and the extent of income inequality among the poor, as measured, say, by the Gini coefficient. Sen's poverty index and the P-alpha class include all three of these aspects. However, the available tabulations for developing countries do not report these measures or the additional data needed to calculate them, so as a practical matter, we are forced to rely on the poverty headcount ratio alone.

What do the poverty data show? The finding, shown in Table 4.1 (appendix), is a happy one. Nearly always, when economic growth, as measured by gross national product or Internationally Comparable Purchasing Power units per capita, has taken place, real incomes of individuals and households have risen and absolute poverty has thereby fallen. Using probit analysis, we find that the probability that poverty falls is a function of the economic growth rate: the higher the economic growth rate, the more likely poverty is to have fallen.

We find too that in most instances where poverty has risen, aggregate economic growth has been very small or even negative. This was true of India in the 1960s. Elsewhere, it was also true of Jamaica in the 1970s and of many Latin American countries in the 1980s. The same is thought to be true of many African countries as well, but because these countries lack household surveys for the beginning of the decade, this conjecture cannot be confirmed rigorously.

In the developing world, the outstanding exception to the generalization that poverty increases only in the absence of growth is the Philippines during the Marcos years. Data compiled by Mijares and Belarmino (1973) show that from 1961 to 1971, nominal income growth of the poorest 20 per cent in the Philippines was plus 79 per cent while consumer prices rose by 101.6 per cent over the same interval. This implies that absolute poverty rose, at least for the poorest 20 per cent. Balisacan (1993), in his study of the period between 1965 and 1971, also found a rising poverty headcount ratio in the Philippines. The most straightforward explanation—crony capitalism—may well be the right one.

The implication of these findings is that more growth can be expected to help *all* income groups including the poor. The poor have benefited absolutely when growth has taken place, even when that growth was based on a very unequal initial distribution of income. Of course, some *kinds* of economic growth would undoubtedly be more

beneficial for the poor than others. When it is possible to stimulate such kinds of broad-based growth, this should indeed be done.

Some claim that in the absence of fundamental change, the poor will be rendered poorer by economic growth, and for this reason it is better not to grow at all. This claim is *not* supported by the bulk of the evidence. Even in very inegalitarian countries such as Brazil and Mexico, growth on the existing economic base has been better for the poor than no growth. Whenever possible, the first-best kinds of broad-based growth policies should be sought. But when political realities render the first-best unattainable, the second-best will probably still achieve growth.

### Changes in Inequality Over Time

Another criterion for determining whether growth is broad based or not is the change in relative income inequality. Studying 'inequality' means comparing one group's income change relative to another's or to the average in an economy as a whole. When the comparison is made on the basis of income *ratios*, rather than income *differences*, the comparison is one of 'relative inequality'. Most often, income is the basis for such comparisons, although expenditures sometimes are used instead.

Ever since Simon Kuznets' path-breaking work on economic growth and income inequality in 1955, relative income inequality measures have been the basis for comparisons. The most commonly used relative inequality measures are the income shares of particular quantile groups and Gini coefficients.

Kuznets himself, and many others who followed, used cross-sectional data to derive empirical inferences about the supposed relationship between inequality and economic growth. It was well understood that this was not the ideal methodology—looking over time within individual countries' development experiences would clearly have been better—but with the data then available, this could not be done. One investigator whose empirical work was extremely influential, Montek Ahluwalia (1976, p. 307), was quite explicit about this:

The use of cross country data for the analysis of what are essentially dynamic processes raises a number of familiar problems. Ideally, such processes should be examined in an explicitly historical context for particular countries.

Unfortunately, time series data on the distribution of income, over any substantial period, are simply not available for most developing countries. For the present, therefore, empirical investigation in this field must perforce draw heavily on cross country experience.

Kuznets suggested, and a long series of cross-section studies seemed to confirm, that inequality tends to increase in the early stages of economic growth and to decrease in the later stages.<sup>2</sup> But intertemporal studies of individual countries, including the work of Kuznets himself (1955), revealed no pronounced tendency one way or the other.<sup>3</sup> We know now that Kuznets' curve was an inverted-U shape because of the use of cross-sectional data; panel data methods turn the shape of the curve around to an ordinary U (Fields and Jakubson 1992).



Using the Gini coefficient as the inequality measure, data on inequality are presented in Table 4.2 (appendix). (As with the choice of the poverty headcount ratio to measure poverty, the choice of the Gini coefficient is on purely practical grounds: many countries publish Gini coefficients but not other inequality measures.) Taking the criteria discussed earlier, we might ask, How broad based is economic growth? Are the gains for the poor sufficiently large that the Gini coefficient falls? Do the poor benefit equiproportionately from economic growth, thus keeping the Gini coefficient unchanged? Or do the poor benefit less than the nonpoor, so that the Gini coefficient increases?

The evidence on Kuznets' curve and related hypotheses is decisively indecisive: there is *no* pattern to the observed changes. In fact, the testing of four hypotheses elicited the following results:

**Hypothesis 1:** Inequality tends to change systematically in developing countries.

**Result:** No pattern is found. Rather, inequality increases in half the countries' growth experiences and decreases in the other half.

**Hypothesis 2:** Inequality tends to increase in the early stages of economic development and to decrease in the latter stages.

**Result:** This hypothesis also is refuted. In cross-sectional data, inequality is higher for middle income developing countries than in those that are either richer or poorer. The developing countries were therefore divided into two groups: those with incomes below the turning point and those with incomes above the turning point. Kuznets' hypothesis would predict that the first group of countries would have inequality that rises with growth, and, the second, inequality that falls with growth. However, inequality rises as often in the lower income developing countries as it does in the higher income developing countries.

**Hypothesis 3:** Inequality is more likely to increase in fast-growing developing economies than in slow-growing ones.

**Result:** Again, the evidence fails to confirm the hypothesis. Instead, we find that the rates are the same: inequality rises with the same frequency in the fast-growing developing economies as in the slow-growing ones.

**Hypothesis 4:** A more unequal initial distribution of income leads to a faster subsequent rate of economic growth.

**Result:** False again. The initial inequality in the distribution of income has nothing to do with the subsequent rate of economic growth.

These results establish that when changes over time are measured, there is *no empirical tendency whatsoever* in the inequality-development relationship. If inequality does not tend to increase before it decreases, to fall with economic growth (or to rise), or to change systematically with the rate of economic growth, it must be that it is not the *rate* of economic growth, but rather the *type* of economic growth, that determines the extent to which the poor share in the growth process.

Furthermore, even when inequality *has* changed, the changes have almost always been small in magnitude. Thus, Brazil remains a relatively high inequality country, Costa Rica, a middle inequality country, and Taipei,China, a low inequality country. Maintaining present inequality levels means that for a very inegalitarian country like Brazil, the poorest quintile will get about 2 per cent of the benefits of growth and the richest quintile about 68 per cent. For a more egalitarian country, like the People's Republic of China, the corresponding figures are 6 per cent and 42 per cent (Chen, Datt, and Ravallion 1993).

For the poor to receive a larger share of the benefits of growth, reforms are needed, along the lines discussed below. These policies will not necessarily slow the economy's growth rate; indeed, the finding for hypothesis 4 above and other recent studies (Waldmann 1992; Alesina and Rodrik 1993; and Persson and Tabellini 1993) show that those countries with a more equal initial distribution of income grow *as fast or faster* than others. Growth being broadly based is good not just for the poor; it is good for growth too.

### **Broad-Based Growth in East Asia**

For economic growth to have broad-based effects, there must be mechanisms for transmitting gains throughout the economy, especially to the poor. The single most important asset of the poor is their labor. It follows that economic growth can reach the poor if it increases the demand for their labor, increases the demand for the products of their labor, or provides complementary inputs with which to make their labor more productive.

The most outstanding examples of broad-based economic improvements over a sustained period of time are the newly industrializing economies (NIEs) of East Asia (Hong Kong, Republic of Korea, Singapore, and Taipei,China). Their labor market and income distribution experiences, presented in Appendix Tables 4.3 and 4.4, present a picture of extraordinary improvements.

In these economies, as firms expanded output, they also expanded their demand for labor. Labor-intensive growth first succeeded in leading to full employment in previously labor-abundant economies. When the Lewis-Fei-Ranis turning point was reached so that an additional supply of labor was no longer forthcoming at prevailing wage rates, firms that wished to expand output and employment further were forced to raise real wages in order to attract sufficient labor. They could have decided not to pay the higher wages, not to increase employment, and hence not to grow, and indeed some firms made exactly this choice—textile producers being perhaps the best known example. But so many other firms *were* willing to pay the higher costs that real labor earnings increased year after year in industry upon industry. Real wages *throughout* these economies rose apace with economic growth as a whole. See Table 4.5 (appendix). Unemployment rates of just 1 or 2 per cent prevailed for decades.

As labor markets tightened, the mix of employment improved: the fractions of workers in agriculture (a relatively low-paying sector) fell; wage employees, as a percentage of total employment, increased, as did the proportions of workers in the highest occupational categories. The educational levels of the employed population improved as well. The rapidly rising real wages and improved mix of jobs among a labor

force with very little unemployment led to sharply falling rates of poverty and low to moderate levels of inequality.

There are arguments that the pursuit of broad-based growth through tightening labor markets leads to a dialectical contradiction: that the very act of stimulating labor demand raises wages and/or generates labor shortages, choking off the very growth it was designed to stimulate. So far, this hasn't happened—30 years of official and professional lamentation over wage increases notwithstanding. Perhaps developing economies have a lot of room for maneuvering before this becomes a problem.

In full employment economies, the only thing worse than rising real wages would be for wages *not* to rise. If wages are held below market-clearing levels, how would companies deal with the resultant labor shortages? Wouldn't economic growth be slowed? Wouldn't the rate of improvement of standards of living be curtailed? What is growth for?

The 'Asian Miracle' bears careful study, and indeed is receiving such study both from empiricists and from theorists.

### **Policies Producing Broad-Based Growth**

In a short paper such as this, space does not permit for more than a brief analysis of a few of the major factors that determine how conducive various types of growth have been to producing broad-based economic participation.

The first points discussed in this section relate to labor returns directly. These include policies that favor the full utilization of labor and policies that affect what labor has to work with, namely land and education. The section continues to discuss two aspects of the economic environment that have proved central to determining how broadly based economic growth is: the interrelation between government regulation and private enterprise, and countries' trade and industrialization strategies.

### **Policies that Favor the Full Utilization of Labor**

Two types of 'distortions' in labor markets are to be avoided (Fields 1993). The first involves policies to raise the returns to labor prematurely, before employers are ready to pay the higher labor costs. Unless we believe that labor demand curves are not downward sloping, we would have to expect that excessively high wages would reduce both employment and output. The other labor market distortion to avoid is labor market repression. Labor market repression is neither necessary nor desirable for economic growth, quite apart from the severe social consequences that it has. Policies that favor full utilization of labor should therefore be sought.

Because developing economies are labor abundant and because labor is the chief asset of the poor, it stands to reason that economic growth of a labor-intensive character would not only be efficient relative to capital-intensive development but it would also benefit the poor more than would capital-intensive growth. Indeed, the evidence presented earlier shows exactly that.

Labor-intensive growth has another advantage: prejudicial behavior becomes increasingly costly for employers. In the Far East, an important group of beneficiaries from tight labor markets was women, whose employment opportunities expanded

greatly. Women have yet to attain economic and social equality with men in that part of the world, but the gap is narrowing.

This raises the question of how best to create more and better jobs. Real wages have plummeted in many countries in Latin America and Africa and yet employment has increased little. This suggests that developing countries may have little scope for increasing employment through wage cutting. It may be that a better way is to increase production and hence shift the derived demand for labor.

### **Distribution of Productive Assets: Education**

As the *quantity* of labor demanded in the labor market is important, so is the *quality* of the labor process, that is, the skills workers bring to the labor market and the inputs they have to work with.

Education makes people more productive. Notwithstanding arguments about credentialism, screening, and low quality and inappropriate curricula, there can be no doubt that genuine human capital formation takes place in schools in developing countries.

Due to scarcity of resources, education in the developing world is neither universal nor free. Typically, the education ministry has a certain agreed-upon budget to be divided among various levels and qualities of educational inputs. As a result, more of one type of education necessarily means less of another.

How should education dollars best be spent? The most efficient allocation of resources would be the one that yields the highest social benefit per dollar spent. Typically, the social cost of a year of higher education is many times that of a year of primary education. Cost ratios of 20, 30, or 40 to 1 are not uncommon. One college graduate is probably not 20, 30, or 40 times as valuable to the society as one primary school graduate. So on efficiency grounds, resources would probably best be allocated to primary education. The egalitarian allocation of resources would be the allocation with the most equal possible outcome. Spending the marginal educational dollars on 20, 30, or 40 children who would otherwise be unschooled rather than on one person who already has a relatively high level of schooling would also be preferable on equity grounds.

This illustrates that in allocating resources to education, there may be no tradeoff between efficiency and equity: spending the marginal educational dollars on primary education rather than higher education may add more to the productive capacity of workers in the economy *and* spread the benefits of economic growth more widely. More research is needed on the empirical effects of educational expansion. We need to know more about how labor markets adjust when more workers are educated. What kinds of jobs do the graduates get? How much more productive are they in those jobs with education than they or others might have been without the education? What happens to the less educated persons who are displaced by the better educated? What kinds of jobs do they get? After taking account of the possible reallocation of the labor force among jobs and the changes in productivity in each, how much is output enhanced when the labor force is better educated?

### **Distribution of Productive Assets: Land**

As with the allocation of educational resources, there may be no tradeoff between equity and efficiency when land is considered. After labor, land is the next most important asset of people in developing countries. In the early post World War II period, both the Republic of Korea and Taipei, China had major land reforms. Singapore and Hong Kong, being city states, faced no significant inequality of land ownership. Thus, in all four of the East Asian NIEs, postwar economic development was based on a relatively egalitarian foundation.

An initially egalitarian distribution of land and other assets has three principal advantages. One is the direct effect of the assets in generating incomes, hence spreading the benefits of growth to those at the bottom of the economic scale. Second, ample research shows that small farms have higher yields per acre. Thus, on efficiency grounds, the presumption is that a more equal distribution of land would raise total agricultural productivity. The third advantage is political. Landed oligarchies can be extraordinarily powerful, often channeling public decisions toward their own personal gain rather than toward the larger social interest. It may well be because of the land reforms that the influence of landed oligarchies was much more limited in the Republic of Korea and Taipei, China than it was, and is, in the Philippines or Brazil.

Land reform can be a valuable ingredient in helping achieve broad-based growth in some cases, but not necessarily in all (see the paper by Rashid and Quibria in this volume for a more pessimistic view). But even when it is not possible to equalize the distribution of productive assets, growth will probably still be beneficial for the poor.

### **Government Regulation and Private Enterprise**

There are two kinds of governments: those that mean well and those that don't. There are also two kinds of private enterprises: those that behave decently and those that will do whatever it takes to maximize the returns from their activities. Well-meaning governments often regulate their economies in the hopes of effecting better outcomes. At times, these regulations offer genuine protection against abuses that would otherwise occur. The question is how to strike the right balance between the legitimate interests of workers to earn fair wages and work in decent conditions, consumers to receive fair value for price paid, and businesses to earn profits.

To illustrate how such a balance might be struck, let us consider the regulation of labor markets. Most developing countries have abundant labor relative to other factors of production. When economic growth has *not* been labor intensive, it has often been because of efforts to legislate higher than market returns to labor. Among the mechanisms for doing this are minimum wages, encouragement of unions<sup>7</sup> wage bargaining efforts, public sector employment creation at above-market wages, and ambitious labor codes.

These efforts, though well intentioned, ignore the fact that higher wages for workers mean higher labor costs for employers, thus creating an incentive for firms to economize on the use of labor by not employing as many people. Some firms respond by substituting capital in place of labor. Others cut back on their output levels, using less of both capital and labor to produce less output. Others use less of one country's labor by moving offshore and hiring workers elsewhere.

Premature wage increases have predictable side effects. It is no accident that the forces leading to premature wage increases have been largely absent from the East Asian economies, which not only have achieved rapid economic growth but also rapidly rising real earnings. The labor market policies conducive to broad-based improvements in labor market rewards are those that *pull* the poor along when the economy grows, not those that *push* wages and working conditions up in the hope that the rest of the economy will somehow absorb these increases.

This is *not* an argument for a completely unregulated labor market. Far from it. Essential freedoms must be guaranteed and decent treatment assured. Labor markets must be regulated to prevent abusive practices. No person should have to endure such abuses as slavery, indentured servitude, restrictions on freedom of association or collective bargaining, unknowing exposure of workers to unsafe or unhealthy working conditions, or the employment of children for long work hours simply because they are cheaper to hire than adults. And no country should knowingly permit such abuses.

As a working rule, a very simple question may be asked, Is a particular way of doing things a socially acceptable *procedure* for undertaking economic activity? If the answer is no, as it is for slavery, for example, then that procedure is properly outlawed. But when the procedure is not inherently objectionable, the creative energies of the various participants may best be harnessed in a well-functioning labor market. Research is needed to determine when regulations have impeded *desirable* private enterprise adjustments and, equally importantly, when regulations have prevented private enterprise from engaging in socially *undesirable* actions. Regulations in labor markets would be a good place to start such research.

### **Trade and Industrialization Strategies**

The evidence is compelling that outward-oriented trade and industrialization strategies are better than inward-looking strategies, not only for raising the rate of aggregate economic growth but also for achieving more broad-based economic growth. As discussed above, the most spectacular economic growth successes of the post-World War II period have been in East Asia: Japan, Hong Kong, Singapore, the Republic of Korea, and Taipei, China. These economies have low to moderate levels of inequality by international standards. They have all maintained essentially full employment and rapidly rising real wages. Poverty has fallen rapidly. And all achieved their successes through export-led growth.

The value of being able to sell profitably in foreign markets can hardly be questioned. Exporting is good for the export firms, for their suppliers, and for their workers. To be able to sell profitably in world markets means that the home-produced good is comparable in quality and price to the best foreign products (otherwise foreign buyers would buy elsewhere), and this means that domestic consumers also benefit. Using additional labor to produce for export brings about heightened competition in these countries' labor markets, thus spreading the benefits to workers in all parts of the economy, including those in nonexportables and agriculture.

When considering the benefits of exporting profitably, the word 'profitable' is the key. Why do some countries insist on exporting unprofitably? Yes, flying the national flag on a jumbo jet is a source of national pride, but isn't there a better way for man not

to live by bread alone? Sociocultural factors aside, the only economically defensible reason to export unprofitably is as an investment in profitable activities for the future. Such investments might be warranted, at least temporarily, in order to learn by doing, to set up a marketing network, or to establish a reputation for quality. It was apparently for reasons such as these that the governments of Japan and the Republic of Korea *required* that companies increase their exports as a condition for maintaining licenses, access to foreign exchange, and other government-conferred benefits.

As has now become clear, the East Asian NIEs did *not* follow identical trade and industrialization strategies; some were much more dirigiste than others. What the East Asian economies did share was a belief that they could achieve rapid, broad-based growth by producing for the world market. Judging by the record, they were quite right.

One reason the East Asian NIEs succeeded is that they chose their trade and industrialization policies with careful attention to comparative advantage. Of equal if not greater importance is that those countries adapted their policies when comparative advantage shifted. Textile exports rose and then fell. So too did exports of heavy machinery and, more recently, of consumer electronics. It would be interesting to know more than we now do about how public policy fostered appropriate responses to changing comparative advantage.

### **Policy-Relevant Basic Development Research**

Despite all that is known, more research is needed. Seven topics merit high priority for understanding development processes and formulating appropriate development policies, yet they may be lost amidst calls for research on other, more directly applied, topics.

1. *Additional Country Studies.* The experiences of the East Asian NIEs offer persuasive evidence to many, that growth can have very positive distributional effects. Yet, these are only four economies, and rather special ones at that. More country studies are needed, building, of course, on the many high quality studies that have already been carried out by researchers within the countries. A good place to start would be with those Southeast Asian economies (Thailand, Indonesia, Malaysia, and the Philippines) that aspire to be the 'next NIEs' to see how their income distributions and labor market conditions have changed. It would be interesting and worthwhile to compare the experiences of these economies with the experiences of South Asian economies and select Latin American economies.
2. *Determinants of Constraints on Choices.* Basic economics courses teach that individuals make maximizing choices subject to constraints. While we have learned a great deal about the choices individuals make given the constraints they face, we know a great deal less about how the constraints are determined. The 'choice set' is the set of opportunities from which choices are made. Choice sets are determined by macroeconomic conditions, public policies and strategies, markets, institutions, and the summation of individual behavior. But how precisely do these factors interact? More work is needed at the level of the market and intermarket analysis—what some now call the 'meso' level.

3. *Coping Strategies.* Over time, choice sets change. Individuals and households cope with these changes and reoptimize. How does behavior change with economic growth and decline? Are the adjustments symmetric, or do individuals and markets respond differently on the downswing than they did on the upswing? When macroeconomic conditions change or when policy reforms are undertaken, which institutional arrangements facilitate smooth adjustments? We need to know much more than we do about coping strategies and their determinants.
4. *Labor Market Functioning.* Labor market studies too often consist of descriptive information on rates of unemployment, employment patterns, labor supply, and earnings functions. We know too little about how labor markets actually function. How integrated or segmented are various countries' labor markets? What determines the amount of employment in each major sector or segment? What determines levels of earnings and changes in earnings in various parts of a country's labor market? How do education and labor markets interact? We need more behavioral studies of the labor markets of developing countries—in the best sense of the term—to 'get the story right'.
5. *Informal Sector.* Uncharacteristically of our profession, we talk a lot about the informal sector without having defined clearly what we mean by it. This term means many things to many people. A clear definition is needed. If the 'informal sector' consists of more than one tier, then we need to look at each tier separately and ask, Why are people in each part of the informal sector? What are the determinants of incomes in each? How might income opportunities be improved in each? Considering the costs, as well as benefits, is the solution to be found within the informal sector or outside of it?
6. *Dynamics of Growth.* After a long hiatus, economists are once again building formal theoretical models of economic growth. These models analyze various 'engines of growth' including technological change, positive externalities, human capital formation, quality upgrading, new product development, cost reductions, research and development, and international trade. Including these factors in formal models is a most welcome development. However, as with earlier formal growth models, the new models are emphasizing equilibrium growth paths, whereas the evolution of economies when they are out of equilibrium is of much more interest to development economists and policymakers. We need to adapt these new models to the study of nonsteady state growth dynamics. We also need empirical case studies, including both successful instances of market penetration (such as textiles and electronics) and nonsuccesses. The insights from these case studies should then be used to guide further theoretical modeling efforts.
7. *Economic Mobility.* To supplement the data on changes in poverty and inequality, which give a series of snapshots, it is important also to know what happens over time to given individuals. To what extent do people move up or down within the income distribution? Which groups have higher rates of mobility than others? How much of the observed economic mobility can be accounted for by movements of individuals within a given income structure and how much by a change in the structure itself? Questions like these can be answered, but only with longitudinal data that, unfortunately, are not yet generally available for the



developing countries of Asia or elsewhere. Therefore, such research must necessarily be postponed to the more distant future.

## Conclusions

The main points of this paper may be summed up as follows:

- The concern with distributional aspects of economic development is motivated by a concern for broad-based growth. Measures for determining how broadly based growth has been fall into two categories: those that look at absolute changes in real incomes for the poor or other target groups, and those that compare one group's rate of income change with another's. Analysts need to decide first whether they are concerned primarily with changes in absolute poverty or in relative inequality, or whether they are equally concerned with both, for only then can they go to the available distributional statistics to see what has happened to the variables that concern them.
- The available evidence on the distributional effects of growth gives a completely different impression depending on which distributional approach is adopted. For reasons of intellectual history (such as Kuznets' pathbreaking work), economists and other social scientists devoted a great deal of attention to the effects of economic growth on relative income inequality. Notwithstanding Kuznets' hypotheses and subsequent cross-sectional evidence, we now know from current data that there is *no* relationship between economic growth and changing income inequality. Put in the terms used in the literature, not only does income distribution not *have* to get worse before it gets better, it does not even *tend* to. As for absolute poverty, the evidence is quite pronounced: nearly always when growth takes place, poverty falls; when poverty doesn't fall, it is because growth has not taken place.
- The rapid economic growth achieved by the newly industrializing economies of East Asia (Hong Kong, Republic of Korea, Singapore, and Taipei, China) has led to marked distributional improvements. These economies have had sustained records of full employment, improving job mix, rising real wages, falling absolute poverty, and low to moderate levels of income inequality. Their rates of improvement are the envy of the rest of the world.
- From country studies, we have learned that certain development policies are associated with better distributional outcomes than others. The key factors identified here are labor market policies, the distribution of education, the distribution of land, government regulation and private enterprise, and trade and industrialization strategies.
- More remains to be learned. High priority research areas are additional country studies, the determinants of constraints on choices, coping strategies of individuals and households, labor market functioning, the role of the informal sector, the dynamics of growth outside of the steady state, and economic mobility.

## Appendix

Table 4A.1  
Change in Poverty and Rates of Growth, Spell Analysis

Part A: Change in Poverty and Growth Rate of GNP per Capita

<i>Spell</i>	<i>Growth Rate of GNP per Capita (per cent)</i>	<i>Change in Poverty</i>
Costa Rica, 1979-1982	-5.7	Poverty increased
Jamaica, 1973-1979	-5.3	Poverty increased
Bangladesh, 1966/67-1973/74	-2.3	<b>Mixed evidence</b>
Pakistan, 1969/70-1979	1.4	Poverty decreased
Bangladesh, 1976/77-1981/82	1.6	<b>Mixed evidence</b>
India, 1977/78-1983	2.0	Poverty decreased
Sri Lanka, 1963-1973	2.3	Poverty decreased
Sri Lanka, 1978/79-1981/82	3.0	Mixed evidence'
Sri Lanka, 1973-1978/79	3.0	Poverty decreased
India, 1973/74-1977/78	3.1	Poverty decreased
Mexico, 1969-1977	3.3	Poverty decreased
Malaysia, 1979-1984	3.8	Poverty decreased
Jamaica, 1978-1979	4.0	Poverty increased
Thailand, 1968/69-1975/76	4.0	Poverty decreased
Mexico, 1963-1969	4.2	Poverty decreased
Bangladesh, 1973/74-1976/77	4.3	Poverty increased
Korea, Republic of, 1976-1980	4.3	Poverty decreased
Indonesia, 1978-1980	4.5	Poverty decreased
Thailand, 1975/76-1981	4.6	Poverty decreased
Hong Kong, 1966-1971	4.8	Poverty decreased
Indonesia, 1970-1976	4.8	Poverty decreased
Thailand, 1962/63-1968/69	4.8	Poverty decreased
Indonesia, 1976-1978	5.0	Poverty decreased
Malaysia, 1976-1979	5.0	Poverty decreased
Malaysia, 1970-1976	5.2	Poverty decreased
Brazil, 1970-1980	5.7	Poverty decreased
Hong Kong, 1971-1976	6.2	Poverty decreased
Singapore, 1975-1980	6.8	Poverty decreased
Korea, Republic of, 1965-1970	7.0	Poverty decreased
Korea, Republic of, 1970-1976	7.2	Poverty decreased
Singapore, 1966-1975	8.4	Poverty decreased

(Continued next page)

Table 4A.1 (Continued)

## Part B: Change in Poverty and Growth Rate of ICP per Capita

<i>Spell</i>	<i>Growth Rate of ICP<sup>b</sup> per Capita (per cent)</i>	<i>Change in Poverty</i>
Costa Rica, 1979-1982	-7.3	Poverty increased
Jamaica, 1973-1979	-4.0	Poverty increased
Bangladesh, 1966/67-1973/74	-1.7	Mixed evidence <sup>a</sup>
Sri Lanka, 1963-1973	-0.2	Poverty decreased
India, 1977/78-1983	0.8	Poverty decreased
Pakistan, 1969/70-1979	1.9	Poverty decreased
Mexico, 1958-1963	2.2	Poverty decreased
India, 1973/74-1977/78	2.5	Poverty decreased
Jamaica, 1968-1973	3.0	Poverty increased
Mexico, 1969-1977	3.0	Poverty decreased
Sri Lanka, 1973-1978/79	3.1	Poverty decreased
Bangladesh, 1973/74-1976/77	3.7	Poverty increased
Mexico, 1963-1969	4.0	Poverty decreased
Thailand, 1962/63-1968/69	4.0	Poverty decreased
Thailand, 1968/69-1975/76	4.1	Poverty decreased
Mexico, 1963-1968	4.2	Poverty decreased
Malaysia, 1979-1984	4.4	Poverty decreased
Hong Kong, 1966-1971	5.1	Poverty decreased
Indonesia, 1976-1978	6.0	Poverty decreased
Malaysia, 1976-1979	6.1	Poverty decreased
Brazil, 1970-1980	6.3	Poverty decreased
Indonesia, 1970-1976	6.5	Poverty decreased
Indonesia, 1978-1980	6.5	Poverty decreased
Hong Kong, 1971-1976	6.8	Poverty decreased
Singapore, 1975-1980	6.8	Poverty decreased
Malaysia, 1970-1976	7.8	Poverty decreased
Korea, Republic of, 1965-1970	8.0	Poverty decreased
Singapore, 1966-1975	8.6	Poverty decreased
Korea, Republic of, 1970-1976	8.8	Poverty decreased

<sup>a</sup> Poverty increased using one poverty line and decreased using another.

<sup>b</sup> International Comparison Programme.

Source: Fields, Gary, 1991. "Growth and Income Distribution." In George Psacharopoulos, ed., *Essays on Poverty, Equity, and Growth*. Oxford: Pergamon Press.

Table A4.2  
Gini Coefficients in 35 Developing Economies

<b>BAHAMAS</b>		<b>COTE D'IVOIRE</b>	
Gini coefficient of income among households		Gini coefficient of household income	
1971	.435	1985	.553
1975	.523	<b>EGYPT</b>	
1977	.481	Gini coefficient of household expenditure	
1979	.625	1958/59	.42
<b>BANGLADESH</b>		1964/65	.40
Gini coefficient of household income		1974/75	.38
1968/69	.29	<b>EL SALVADOR</b>	
1973/74	.36	Gini coefficient of household income	
1976/77	.45	1976/77	.40
1981/82	.39	<b>FIJI</b>	
<b>BRAZIL</b>		Gini coefficient of income among households, unadjusted	
Gini coefficient of monetary income among households		1977	.425
1960	.53	<b>HONDURAS</b>	
1970	.59	Gini coefficient of income among households	
1972	.61	1967/68	.62
Gini coefficient of 'total gross personal income' among households		<b>HONG KONG</b>	
1976	.60	Gini coefficient of one adult income among households	
1978	.56	1966	.49
1980	.56	1971	.43
1983	.57	1976	.43
<b>CHILE</b>		1981	.45
Gini coefficient of family income		<b>INDIA</b>	
1968	.46	Gini coefficient of income among households	
1971	.46	1975/76	.416
<b>COLOMBIA</b>		<b>INDONESIA</b>	
Gini coefficient of income among economically active persons		Gini coefficient of per capita expenditure	
1971	.57	1964	.333
<b>COSTA RICA</b>		1967	.327
Gini coefficient of income among households		1970	.307
1961	.50	1976	.318
1971	.43	1978	.348
1977	.49	1980	.318
1979	.45	1981	.309
1982	.42	1984	.308

(Continued next page)

Table A4.2 (Continued)

<b>IRAN</b>		1968/69	.335
<i>Gini coefficient of annual household income, unadjusted</i>		1969/70	.331
1973/74		1970/71	.321
		1971/72	.340
		1979	.360
<b>JAMAICA</b>		<i>Gini coefficient of per capita household income</i>	
<i>Gini coefficient of wage inequality among wage earners</i>		1979	.37
1968		1984	.38
1973			
1980			
<b>KOREA, REPUBLIC OF</b>		<b>PANAMA</b>	
<i>Gini coefficient of income among households:</i>		<i>Gini coefficient of adjusted gross available income among households</i>	
1965		1970	
1970			
1976		<b>PERU</b>	
1982		<i>Gini coefficient of per capita household consumption</i>	
		1985/86	
<b>MALAYSIA</b>		<b>PHILIPPINES</b>	
<i>Gini coefficient of income among households</i>		<i>Gini coefficient of one month income among households</i>	
1957/58		1957	
1970		1961	
1976		1965	
1979		1971	
1984		1975	
		1985	
<b>MEXICO</b>		<b>PUERTO RICO</b>	
<i>Gini coefficient of family income after tax</i>		<i>Gini coefficient of family income</i>	
1958		1953	
1963		1963	
1969		1969	
1977		1979	
<b>NEPAL</b>		<b>REUNION</b>	
<i>Gini coefficient of adjusted monthly household income</i>		<i>Gini coefficient of monthly cash income among households</i>	
1976/77		1976/77	
<b>PAKISTAN</b>		<b>SEYCHELLES</b>	
<i>Gini coefficient of income among households</i>		<i>Gini coefficient of gross monthly household income</i>	
1963/64		1978	
1966/67			

(Continued next page)

Table A4.2 (Continued)

SIERRA LEONE		1972	.277
Gini coefficient of monthly		1980	.259
household income, unadjusted		1985	.271
1967/69	.59	THAILAND	
SINGAPORE		Gini coefficient of income,	
Gini coefficient of income		recipient unit not reported	
among households		1962/63	.414
1972/73	.40	1968/69	.429
1977/78	.37	1975/76	.451
1982/83	.42	1981	.473
SRI LANKA		TRINIDAD AND TOBAGO	
Gini coefficient of one month income		Gini coefficient of monthly income	
among spending units		among households:	
1953	.46	1971/72	.539
1963	.45	1975/76	.474
1973	.35	TUNISIA	
1978/79	.44	Gini coefficient of per capita	
1981/82	.45	expenditure, adjusted	
TAIPEI, CHINA		1974/75	.404
Gini coefficient of income		TURKEY	
among households:		Gini coefficient of household incomes	
1953	.5 (approx.)	1968	.56
1964	.305	1973	.51

Source: Fields, Gary, 1991. "Growth and Income Distribution." In George Psacharopoulos, ed., *Essays on Poverty, Equity, and Growth*. Oxford: Pergamon Press.

Table A4.3  
Changes in Labor Market Conditions and Income Distribution in Seven Small Open Economies

	<i>Barbados</i>		<i>Hong Kong</i>		<i>Jamaica</i>		<i>Korea, Rep. of</i>		<i>Singapore</i>		<i>Taipei, China</i>		<i>Trinidad &amp; Tobago</i>	
I. Unemployment rate (%)	1960	12.0	1961	1.7	1960	13.5	1963	8.2	1957	5.2	1955	6.3	1970	13.0
	1966 <sup>a</sup>	13.0	1971	4.4	1968	19.4	1967	6.2	1965	9.1	1963	4.3	1975	15.0
	1970	9.0	1976	4.3	1972	23.0	1971	4.5	1969	10.4	1972	1.5	1979	12.0
	1976	16.0	1980	3.7	1980	30.0	1976	3.9	1971	7.0	1981	1.3		
	1980	13.0					1981	4.1	1977	4.8				
									1980	3.5				
II. Employment composition														
A. Agriculture as a % of total employment	1970	21.3	1961	7.4	1972	33.4	1963	63.2	1957	6.9	1964	50.0	1970	22.7
	1975	9.9	1971	4.0	1979	33.6	1970	50.4	1970	3.5	1970	36.8	1977	13.4
			1976	2.5			1980	34.0	1979	1.5	1979	21.5		
			1980	1.4										
B. Employees as % of economically active population	—		1961	83.8	—		1963	31.5	1957	73.7	1956	36.8	—	
			1971	87.3			1971	39.3	1970	76.5	1964	39.2		
			1980	89.4			1980	47.3	1979	83.5	1970	50.7		
											1979	63.7		
C. Professional & technical, administrative & managerial, clerical, and sales occupations as % of economically active population	1960	5.1	1961	27.5	1968	14.6	1963	16.9	1957	36.8	1964	22.4	1970	22
	1970	9.2	1971	26.8	1978	21.9	1970	22.9	1970	39.4	1970	26.9	1975	18
			1976	28.3			1980	29.5	1979	42.5	1979	30.0	1978	20
			1980	32.5										
D. % of employed workers with no schooling [% illiterate in brackets]	—		1961	20.2	1970	3.5	1960	44.7	1966	54.1	1965	[26.0]	1970	19.6
			1971	16.2	1979	1.7	1970	23.8	1972	20.6	1970	[20.7]	1975	21.9
			1976	13.9			1980	16.0	1977	35.2	1975	[15.9]	1979	9.2
			1980	10.4					1980	22.5	1980	[9.0]		





Table A4.4  
Changes in Labor Market Conditions and Income Distribution  
in Four Newly Industrializing Economies in the 1980s

	<i>Hong Kong</i>	<i>Korea, Rep. of</i>	<i>Singapore</i>	<i>Taipei, China</i>
I. Unemployment rate (%)				
1980	3.8	5.2	3.1	1.2
1981	3.5	4.5	2.9	1.4
1982	3.8	4.4	2.6	2.1
1983	4.1	4.1	3.2	2.7
1984	3.8	3.9	2.7	2.4
1985	3.3	4.0	4.1	2.9
1986	2.6	3.8	6.5	2.7
1987	1.9	3.1	4.7	2.0
1988	1.5	2.5	3.3	1.7
1989	1.4	2.6	2.2	1.6
1990	1.7	2.4	2.0	1.7
II. Employment composition				
A. Agriculture as a % of total employment				
1980		34.0	1.75	19.5
1981	2.0	34.2	1.49	18.8
1982		32.1	1.35	18.9
1983		29.7	1.34	18.6
1984		27.1	1.08	17.6
1985		24.9	1.11	17.5
1986	1.8	23.6	1.20	17.0
1987		21.9	.87	15.3
1988		20.7	.72	13.7
1989		19.5	.71	12.9
1990		18.3	.32	12.8
B. Employees as a % of total employment				
1980		47.3	85.0	64.4
1981	88.5	47.2	85.1	64.3
1982		47.6	84.7	64.1
1983		49.5	84.3	63.8
1984		52.9	84.4	64.4
1985		54.1	84.4	64.1
1986	87.4	54.4	84.4	64.7
1987		56.2	84.2	66.7
1988		57.0	85.4	67.1
1989		59.1	85.6	67.4
1990		50.2	87.5	65.6

(Continued on next page)

Table A4.4 (Continued)

	<i>Hong Kong</i>	<i>Korea, Rep. of</i>	<i>Singapore</i>	<i>Taipei, China</i>
C. Professional & technical, administrative & managerial, clerical, and sales occupations as% of total employment				
1980	--	29.0	42.9	31.8
1981	30.8	29.2	42.8	32.7
1982		30.6	44.2	33.1
1983		32.1	45.5	33.4
1984		32.9	46.5	33.7
1985		34.3	46.5	34.2
1986	37.9	34.3	46.2	34.3
1987		34.1	47.0	35.1
1988		34.6	46.1	37.2
1989		35.4	46.8	38.5
1990		36.2	60.0"	39.8
D. % of employed workers with no schooling				
1980		49.9	25.2	9.8[6.7]•
1981		45.7	24.5	9.4 (6.5)
1982		43.2	24.9	8.9 [6.3]
1983		39.6	23.3	8.9[6.5]
1984		37.7	20.7	8.6 [6.2]
1985		35.6	22.8	8.2[6.0]
1986		33.7	22.1	8.0[5.6]
1987		31.7	23.1	7.1[5.1]
1988		30.3	19.5	6.2 [4.3]
1989		29.3	19.4	5.7(3.9)
1990				5.1[3.6]
III. Real wages or earnings				
1980	100.0'	100.<f	100.0g	100.0h
1981	102.0	98.9	105.5	102.0
1982	107.0	105.9	116.9	108.7
1983	106.0	114.6	125.9	114.1
1984	114.0	120.7	134.1	124.0
1985	119.0	129.7	146.6	129.5
1986	132.0	137.8	151.1	141.6
1987	140.0	149.0	152.9	154.8
1988	147.0	165.6	158.4	169.5
1989	155.0	195.3	170.4	186.0
1990	160.0	215.8	179.8	202.7

(Continued on next page)

Table A4.4 (Continued)

	Hong Kong	Korea, Rep. of	Singapore	Taipei, China
IV. Poverty				
1980	— <sup>1</sup>	4.8 <sup>2</sup>	— <sup>3</sup>	30.7 <sup>4</sup>
1981	28.5	5.3		32.9
1982		8.6		32.6
1983		7.3		29.0
1984		6.2		24.9
1985		5.6		23.9
1986	18.3	5.3	26.1 <sup>5</sup>	20.8
1987		5.7		18.5
1988		5.5		15.2
1989		5.6		13.4
1990		5.3		
V. Inequality, as measured by Gini coefficient of income among households				
1980		.389 <sup>6</sup>		0.277
1981	.414			0.281
1982			.418 <sup>7</sup>	0.283
1983				0.287
1984				0.287
1985		.344 <sup>8</sup>		0.290
1986	.388			0.296
1987			.402 <sup>9</sup>	0.299
1988				0.303
1989				0.303
1990		.288 <sup>6</sup>		0.312

<sup>1</sup>Hong Kong total employed includes unemployed who have previously held jobs.

<sup>2</sup>1990 figures include service workers.

<sup>3</sup>% illiterate.

<sup>4</sup>% with preliminary school.

<sup>5</sup>Index of average real manufacturing wage.

<sup>6</sup>Index of average real monthly earnings in mining and manufacturing.

<sup>7</sup>Index of average real monthly income.

<sup>8</sup>Index of average monthly manufacturing earnings.

<sup>9</sup>% of households with monthly income less than H\$2,000 in 1982 prices.

<sup>10</sup>% of livelihood protection persons in total population.

<sup>11</sup>% of households with monthly income less than S\$1,000 in 1982/83 prices.

<sup>12</sup>% of households with monthly income less than NT\$200,000 in 1986 prices.

Figure for 1982/83.

• Figure for 1987/88.

• Gini coefficient of urban income.

> Figure for 1982/83.

• Figure for 1987/88.

Source: Fields, Cary, 1993. "Changing Labor Market Conditions and Economic Development in Hong Kong, Korea, Singapore, and Taiwan." Paper prepared for the East Asian Miracle Project. Revised version. World Bank, Washington, D.C.

Table 4.5  
Economic Growth and Earnings Growth in Four  
Newly Industrializing Economies in the 1980s

	<i>Growth of Real GNP or GDP Per Capita (per cent)</i>	<i>Growth of Real Earnings (per cent)</i>
Korea, Republic of, 1980-90	+121.8 <sup>a</sup>	+115.8 <sup>c</sup>
Tapei, China, 1980-90	+88.0 <sup>a</sup>	+102.7 <sup>d</sup>
Hong Kong, 1980-90	+64.2 <sup>b</sup>	+60.0 <sup>d</sup>
Singapore, 1980-90	+77.5 <sup>b</sup>	+79.8 <sup>e</sup>

<sup>a</sup> GNP growth.

<sup>b</sup> GDP growth.

<sup>c</sup> Mining and manufacturing.

<sup>d</sup> Manufacturing.

<sup>e</sup> All industries.

Source: Fields, Gary, 1993. "Changing Labor Market Conditions and Economic Development in Hong Kong, Korea, Singapore, and Taiwan." Paper prepared for the East Asian Miracle Project. Revised version. World Bank, Washington, D.C.

## References

- Adelman, I., and S. Robinson, 1988. "Income Distribution and Development." In Chenery and T. N. Srinivasan, eds., *Handbook of Development Economics*. Amsterdam: North-Holland Publishers.
- Ahluwalia, M., 1976. "Inequality, Poverty and Development." *Journal of Development Economics* (September).
- Ahluwalia, M., N. Carter, and H. Chenery, 1979. "Growth and Poverty in Developing Countries." In H. Chenery, ed., *Structural Change and Development Policy*. New York: Oxford University Press.
- Alesina, A., and D. Rodrik, 1993. "Distributive Politics and Economic Growth." Harvard University and Columbia University. Mimeographed.
- Amsden, A., 1990. *Asia's Next Giant: South Korea and Late Industrialization*. New York: Oxford University Press.
- Asian Development Bank, forthcoming. *Urban Poverty in Asia*. Manila.
- Atkinson, A., 1987. "On the Measurement of Poverty." *Econometrica* 55(4):749-64.
- Balisacan, A. M., 1993. "Urban Poverty in the Philippines: Nature, Causes and Policy Measures." Paper prepared for the Asian Development Bank, Manila.
- Bourguignon, F., and C. Morrisson, 1990. "Income Distribution, Development and Foreign Trade: A Cross-Sectional Analysis." *European Economic Review* 34(6):1113-32.
- Bradford, C., 1986. "East Asian 'Models': Myths and Lessons." In J. P. Lewis and Kallab, eds., *Development Strategies Reconsidered*. Washington: Overseas Development Council.
- Chen, S., G. Datt, and M. Ravallion, 1993. "Is Poverty Increasing in the Developing World?" Policy Research Working Paper Series WPS 1146. World Bank, Washington, D.C.
- Drèze, J., and A. Sen, 1990. *Hunger and Public Action*. London: Oxford University Press.
- Fields, G. S., 1980. *Poverty, Inequality, and Development*. New York: Cambridge University Press.
- , 1989. "A Compendium of Data on Inequality and Poverty for the Developing World." Cornell University.
- , 1991. "Growth and Income Distribution." In G. Psacharopoulos, ed. *Essays on Poverty, Equity, and Growth*. Oxford: Pergamon Press.
- , 1993. "Changing Labor Market Conditions and Economic Development in Hong Kong, Korea, Singapore, and Taiwan." Paper prepared for the East Asian Miracle Project. Revised version. World Bank, Washington, D.C.
- , forthcoming. "Data for Measuring Poverty and Inequality Changes in the Developing Countries." *Journal of Development Economics*.
- Fields, G. S., and G. H. Jakubson, 1992. "New Evidence on the Kuznets' Curve." Paper presented at the Conference on Growth and Income Distribution. Paris.
- Foster, J., and A. Shorrocks, 1988. "Poverty Orderings." *Econometrica* 56(1):173-7.
- International Labour Organisation (ILO), annual. *Yearbook of Labour Statistics*. Geneva: ILO.

- Krause, L. B., 1985. "Introduction." In W. Galenson, ed., *Foreign Trade and Investment*. Madison: University of Wisconsin Press.
- Krueger, A., 1981. *Trade and Employment in Developing Countries*. Chicago: University of Chicago Press for the National Bureau of Economic Research.
- Kuznets, S., 1955. "Economic Growth and Income Inequality." *American Economic Review* (March).
- Lucas, R. E., Jr., 1993. "Making a Miracle." *Econometrica* 61(2):251-72.
- Mijares, T. A., and L. C. Belarmino, 1973. "Some Notes on the Sources of Income Disparities Among Philippine Families." *Journal of Philippine Statistics* (September).
- Okun, A. M., 1975. *Equality and Efficiency: The Big Tradeoff*. Washington: Brookings Institution.
- Persson, T., and G. Tabellini, 1993. "Is Inequality Harmful for Growth?" Working Paper Number 3599. Revised version. National Bureau of Economic Research, New York.
- Quibria, M. G., ed., 1993. *Rural Poverty in Asia*. Hong Kong: Oxford University Press.
- Ranis, G., 1989. "The Role of Institutions in Transition Growth: The East Asian Newly Industrializing Countries." *World Development* 17(9):1443-53.
- Ravallion, M., 1993. "Growth, Inequality and Poverty: New Evidence on Old Questions." World Bank, Washington, D.C.
- Rawls, J., 1971. *A Theory of Justice*. Cambridge, MA: Harvard University Press.
- Schultz, T. W., 1980. "Nobel Lecture: The Economics of Being Poor." *Journal of Political Economy* 88(4):639-51.
- Scitovsky, T., 1986. "Economic Development in Taiwan and South Korea, 1965- 1981." In L. J. Lau, ed., *Models of Development*. San Francisco: ICS Press.
- Sen, A. K., 1976. "Poverty: An Ordinal Approach to Measurement." *Econometrica* 44(2):219-31.
- Tabatabai, H., 1993. *The Incidence of Poverty in Developing Countries: An ILO Compendium of Data*. Geneva: International Labour Organisation.
- Waldmann, R., 1992. "Inequality and Economic Growth in a Cross Section of Countries." Paper presented at the Conference on Growth and Income Distribution, Paris.
- World Bank, 1993. *The East Asian Miracle: Economic Growth and Public Policy*. Washington: World Bank.
- , annual. *Social Indicators of Development*. Washington: World Bank.
- , annual. *World Development Report*. Washington: World Bank.
- Young, A., 1992. "A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore." *NBER Macroeconomics Annual*: 13-54.